

FIG. 1

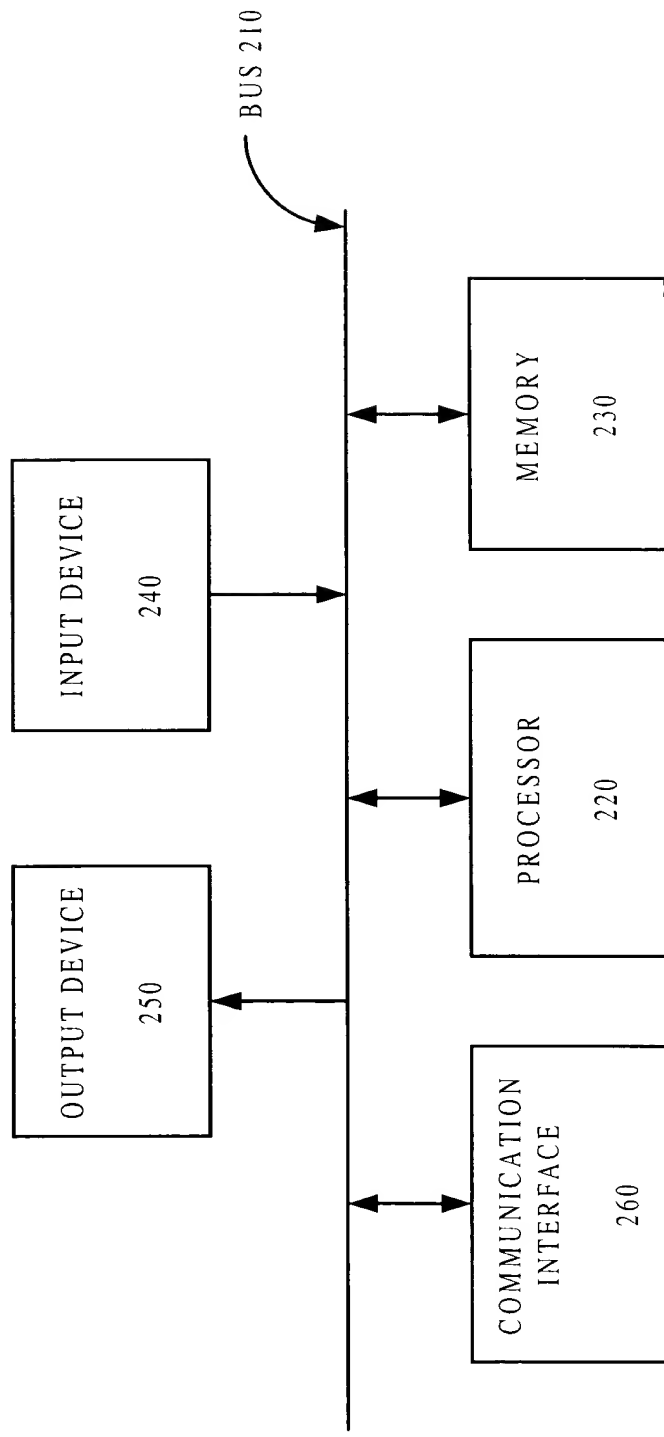


FIG. 2

| ALARM TYPE | NUMBER | STATE | ACTION | TIME | DATE | NE ID | ALARM DESCRIPTION |
|---------------|--------|-------|--------|----------|----------|------------|-------------------|
| 311 | 312 | 313 | 314 | 315 | 316 | 317 | 318 |
| FIRE | 5 | E | | 18:34:22 | 11/02/99 | ABCDEFG03H | ALARM DESCRIPTION |
| LINE | 1 | E | | 18:34:24 | 11/02/99 | ABCDEFG03H | ALARM DESCRIPTION |
| LINE | 1 | AE | | 18:34:28 | 11/02/99 | ABCDEFG03H | ALARM DESCRIPTION |
| PORT | 1 | E | | 18:34:28 | 11/02/99 | ABCDEFG03H | ALARM DESCRIPTION |
| LINE | 2 | A | PA | 18:34:29 | 11/02/99 | ABCDEFG03H | ALARM DESCRIPTION |
| PORT | 1 | E | | 18:34:29 | 11/02/99 | ABCDEFG03H | ALARM DESCRIPTION |

FIG. 3A

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| NE 331 | ID 332 | ALARMS 333 | | | | | TT 334 | HA 335 | NOTES 336 | IN 337 | USERS 338 | EA 339 | LAST MODIFIED 340 |
|---------------|------------|---------------|----|----|----|-------|-----------|-----------|--------------|-----------|--------------|-----------|-------------------------|
| | | C | MA | MI | I | TOTAL | | | | | | | |
| FR SWITCH | ABCDEFG03H | 32 | 35 | 54 | 9 | 130 | 20 | | 14 | | 2 | | 11/02/1999 11:38:34 |
| ATM SWITCH | ABCDEFG04H | 21 | 98 | 20 | 10 | 149 | 21 | 3 | 2 | 1 | 4 | 1 | 11/02/1999 11:39:42 |
| IP ROUTER | ABCDEFG05H | 0 | 0 | 0 | 95 | 95 | 25 | | 4 | | 1 | | 11/02/1999 11:38:34 |
| FR SWITCH | ABCDEFG06H | 0 | 0 | 0 | 87 | 87 | | | | | 1 | | 11/02/1999 11:38:34 |
| ATM SWITCH | ABCDEFG07H | 0 | 0 | 0 | 64 | 64 | 2 | | | | 1 | | 11/02/1999 11:38:34 |
| ATM SWITCH | ABCDEFG08H | 0 | 20 | 0 | 0 | 20 | | | 1 | | 1 | | 11/02/1999 11:37:51 |

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FIG. 3B

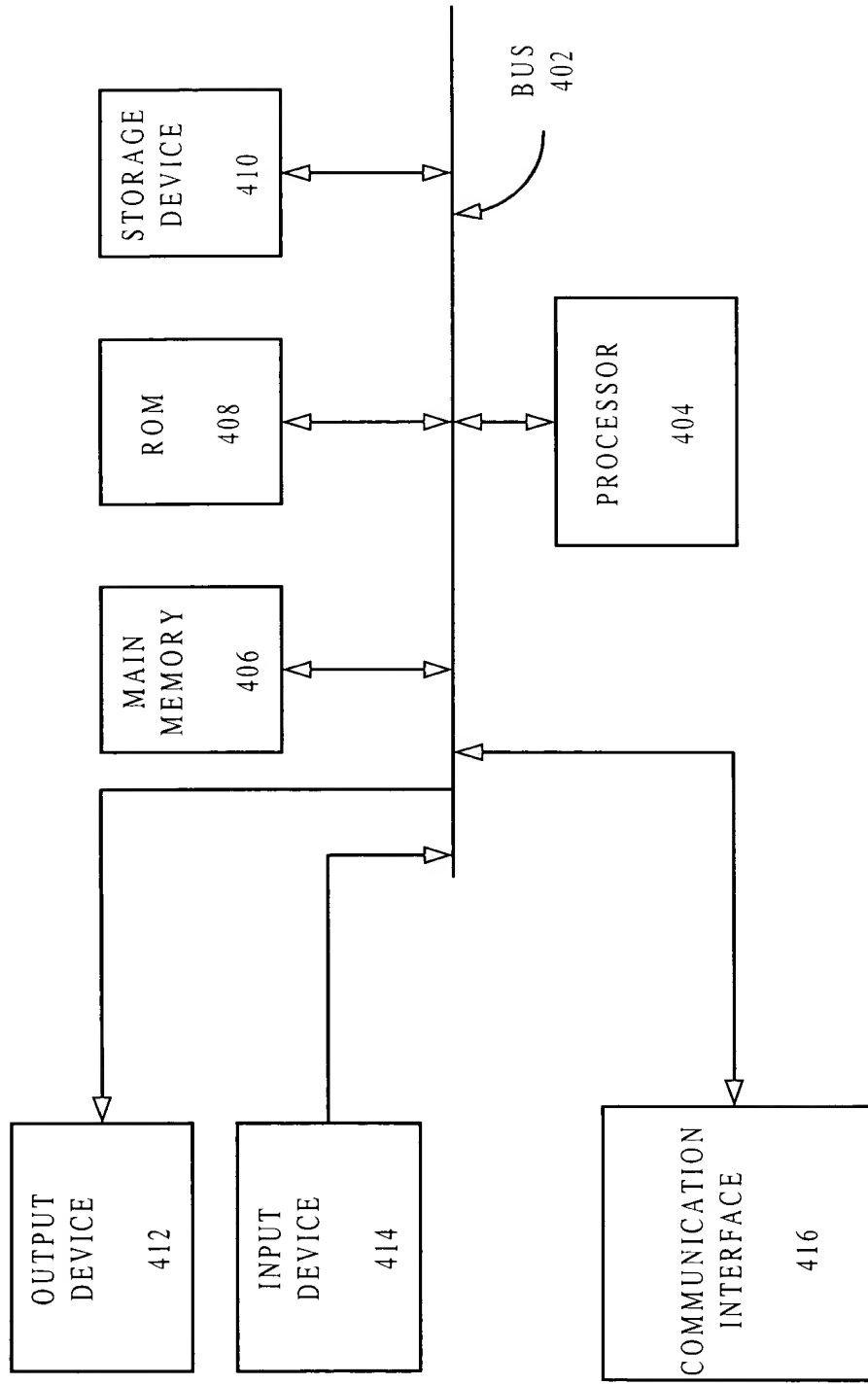


FIG. 4

NETWORK ELEMENT - ABCDEFG03H

FILE EDIT VIEW HELP

| TYPE | NO | ST | AT | TIME | DATE | NE ID | DETAILED ALARM DESCRIPTION | ACK BY |
|------|----|----|----|----------|------------|------------|----------------------------|--------|
| PORT | 1 | E | | 18:34:29 | 11/02/1999 | ABCDEFG03H | ALARM DESCRIPTION | |
| LINE | 2 | A | PA | 18:34:29 | 11/02/1999 | ABCDEFG03H | ALARM DESCRIPTION | EH |
| PORT | 1 | E | | 18:34:28 | 11/02/1999 | ABCDEFG03H | ALARM DESCRIPTION | |
| LINE | 1 | AE | | 18:34:28 | 11/02/1999 | ABCDEFG03H | ALARM DESCRIPTION | |
| LINE | 1 | E | | 18:34:24 | 11/02/1999 | ABCDEFG03H | ALARM DESCRIPTION | |
| FIRE | 5 | E | | 18:34:22 | 11/02/1999 | ABCDEFG03H | ALARM DESCRIPTION | |
| LINE | 4 | E | | 18:34:01 | 11/02/1999 | ABCDEFG03H | ALARM DESCRIPTION | BCO |
| LINE | 2 | A | | 18:33:58 | 11/02/1999 | ABCDEFG03H | ALARM DESCRIPTION | |

MOST RECENT ALARMS

| | | | | | | | | |
|------|--|---|--|----------|------------|------------|-------------------|--|
| LINE | | E | | 18:34:49 | 11/02/1999 | ABCDEFG03H | ALARM DESCRIPTION | |
| LINE | | E | | 18:34:33 | 11/02/1999 | ABCDEFG03H | ALARM DESCRIPTION | |

FIG. 5

| TROUBLE INFORMATION MATRIX | | | | | | | | | | | | | |
|----------------------------|------------|--------|-----|----|----------|--|--|-------|---------|----------------|-------|----|----|
| FILE EDIT VIEW HELP | | | | | | | | | | | | | |
| NE | ID | ALARMS | | | MIN INFO | | | TOTAL | TICKETS | HELD ALARMS | NOTES | IN | US |
| | | CR | MAJ | | | | | | | | | | |
| ATM | ABCDEFG04H | 21 | 98 | 20 | 10 | | | 149 | 21 | 3 | 2 | 1 | 4 |
| FR | ABCDEFG03H | 32 | 35 | 54 | 9 | | | 130 | 20 | | 14 | | 2 |
| IP | ABCDEFG05H | 0 | 0 | 0 | 95 | | | 95 | 25 | | 4 | | 1 |
| FR | ABCDEFG06H | 0 | 0 | 0 | 87 | | | 87 | | | | | 1 |
| ATM | ABCDEFG07H | 0 | 0 | 0 | 64 | | | 64 | | | | | 1 |
| ATM | ABCDEFG08H | 0 | 20 | 0 | 0 | | | 20 | 2 | | 1 | | 1 |
| ATM | ABCDEFG09H | 0 | 20 | 0 | 0 | | | 20 | 4 | | | | 1 |
| IP | ABCDEFG10H | 0 | 0 | 0 | 4 | | | 4 | | | | | 1 |
| IP | ABCDEFG11H | 0 | 0 | 0 | 3 | | | 3 | 1 | | | | 1 |
| ATM | ABCDEFG12H | 0 | 0 | 0 | 1 | | | 1 | | | 1 | | 1 |

FIG. 6

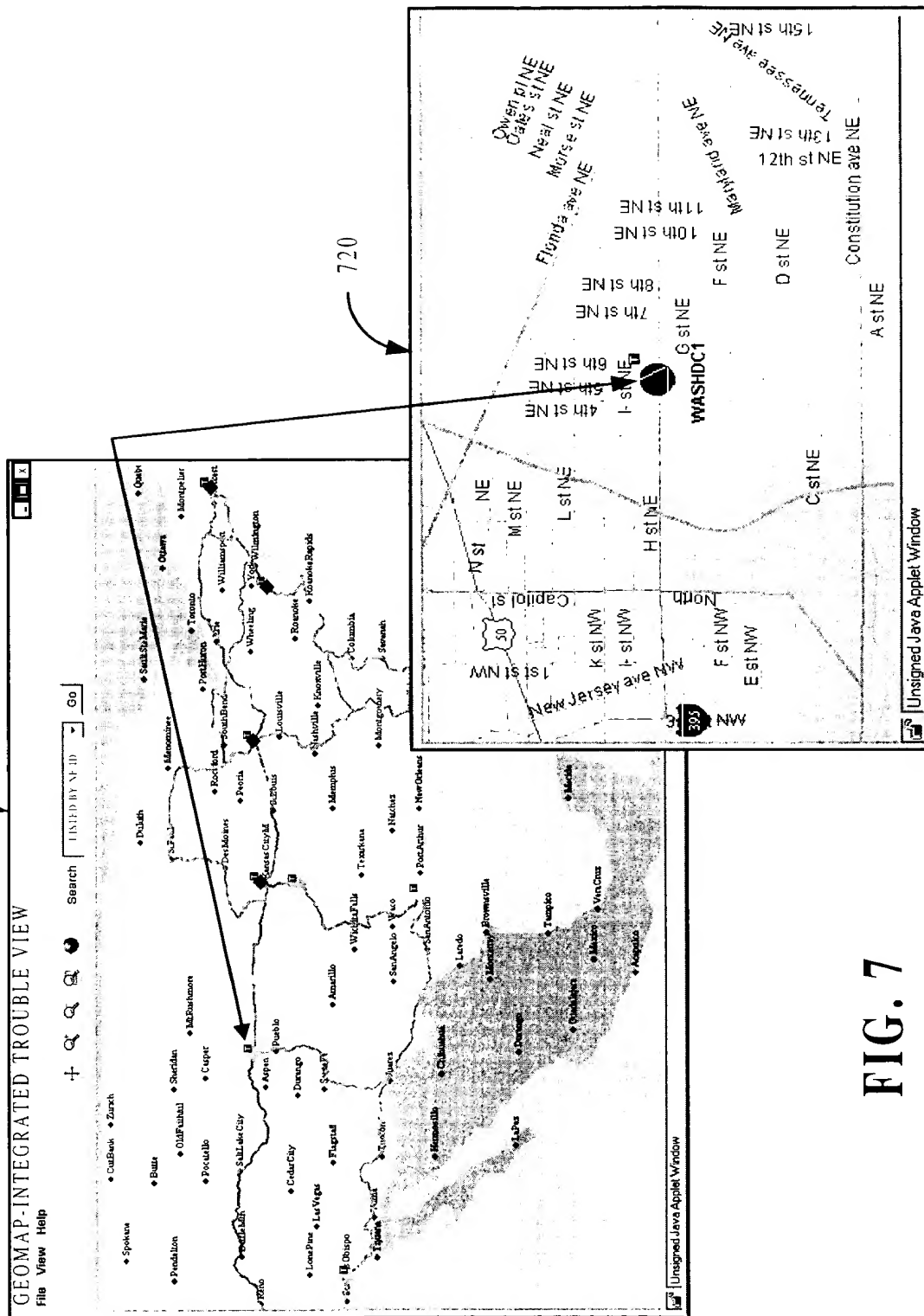


FIG. 7

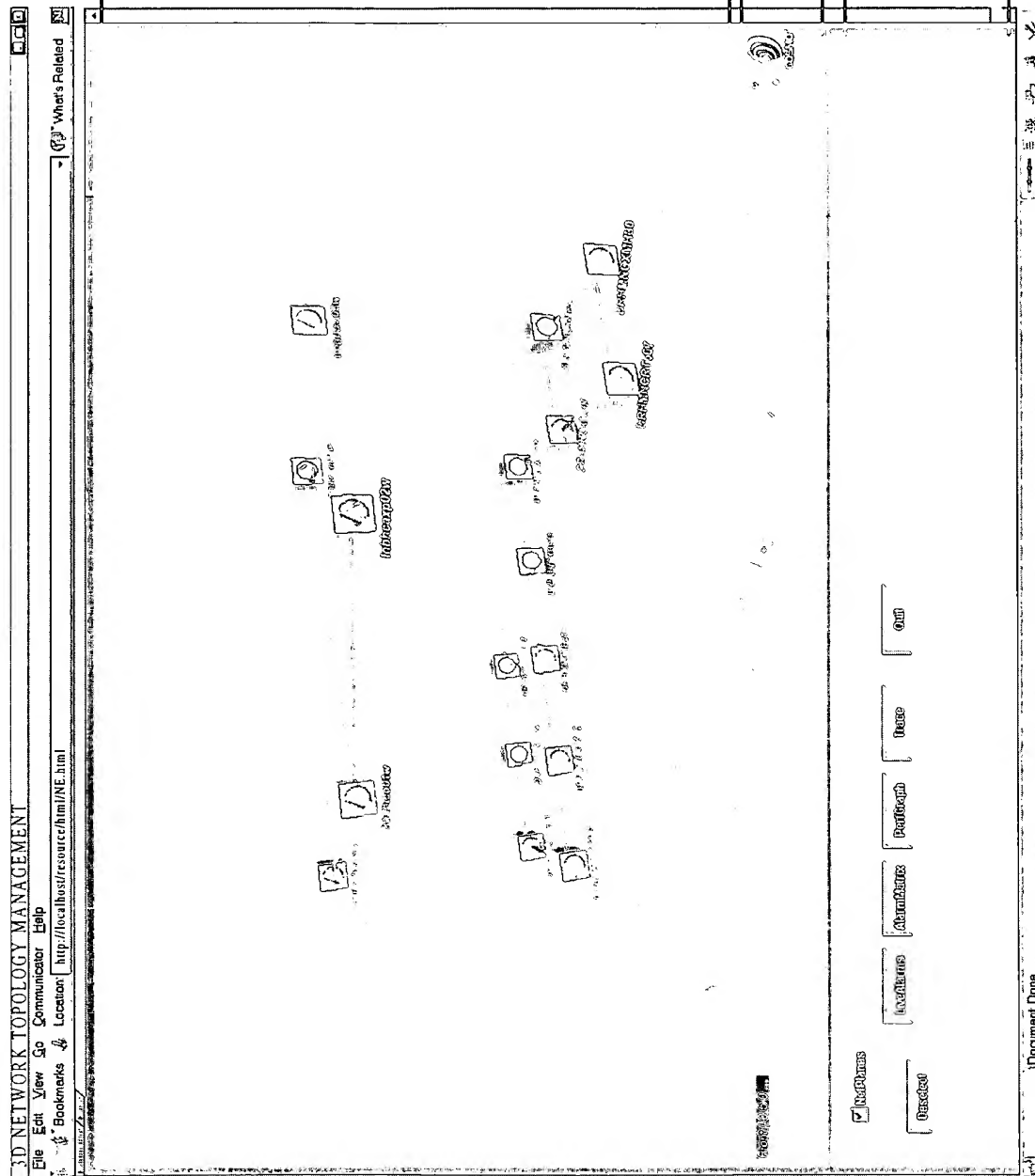


FIG. 8

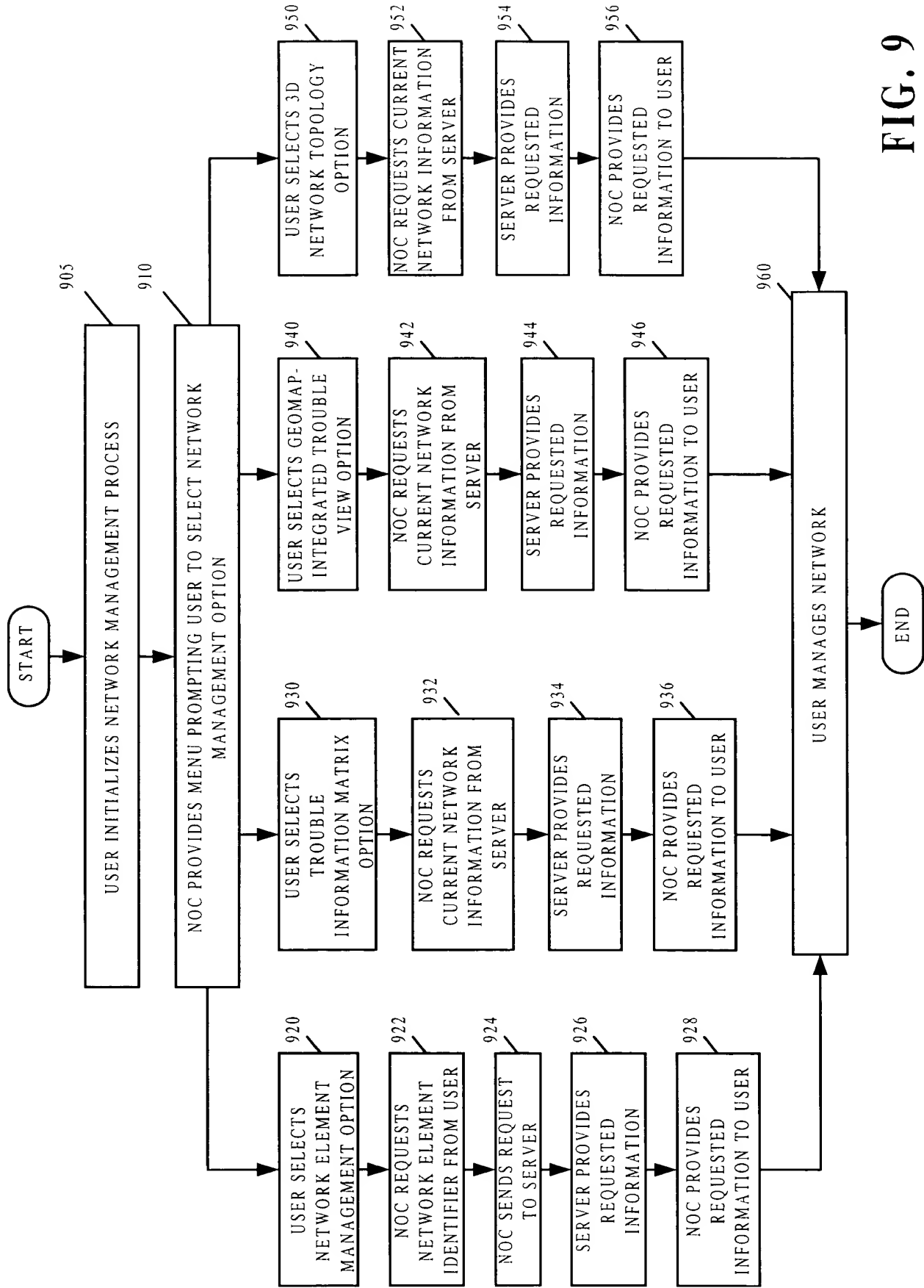


FIG. 9

1000

1000

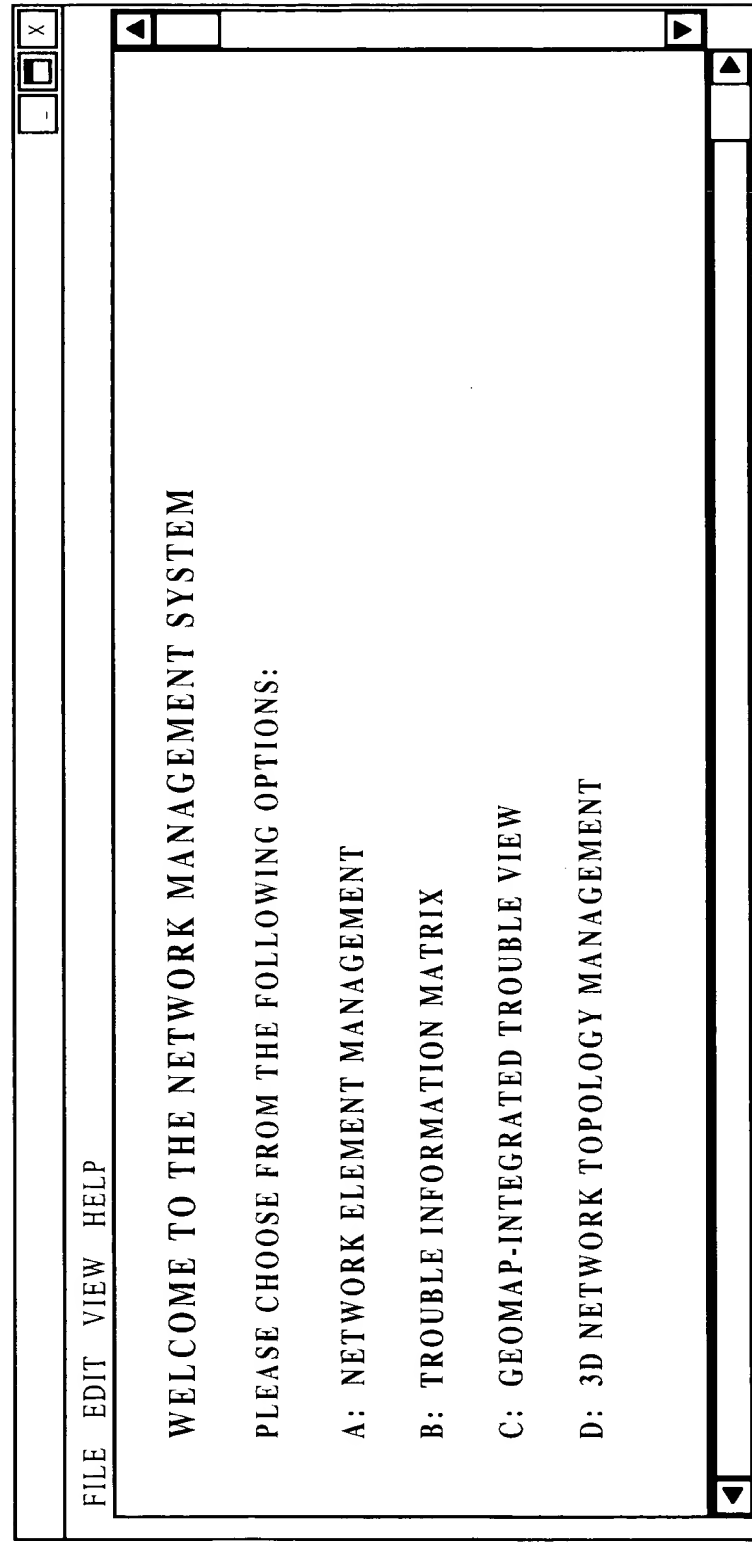


FIG. 10